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State of the art

[0001] The invention relates to a paving, in particular for the application of medicine materials in semisolid and solid medicine form for local and systemic medicament therapies.

[0002] It is well-known that pavings represent not only measures to the striking and Wundabdeckung but also for the admission of drugs for local and systemic medicament therapies. Apart from mechanical tasks of a paving like in particular protection of the fabric from outside effects, z. B. Pressure, bacterial impurities and immobilizing, are to have pavings also concerning their management favorable properties. To it z belong. B. Matching the contour SAMness, attractionless rest and good sticking characteristics on the skin. further in particular a physiological Indifferenz of the plaster components as well as a mechanical stability of the plaster edition are to be expected during moisture penetration. With medikamentenhaltigen federation plasters particular should be given also a compatible combinability with the contained medicine materials.

(Newer recapitulatory displays to the topic are: Riedel, E., Triebisch, W., dressing material booklet, 3. Rest 1983, scientific publishing house company, Stuttgart., Wilson, F., Kohm, B., dressing materials and nursing for the sick article, 3. Rest 1983, German pharmacist publishing house, Stuttgart.)

[0003] The usual pavings used at present fulfill the demands for an admission of semisolid or solid medicine forms only in insufficient mass. Thus of them represents flat arrangement neither a sufficient protection in relation to external mechanical influences, in particular to pressure effects, nor the thin rests trained from Gewebelagen or fleeces possess a sufficient photograph volume for formulations of medicine, in particular for semisolid or solid medicine forms.

Besides conventional pavings contain also no sufficient measures for the sealing and demarcation of the formulations of medicine contained in the rest in relation to the adhesive areas. This leads to successiven separations of the pavings of the skin. Those, leads for medicament applications necessary, makes the mechanical fixed surfaces possible of the rests from fabrics or fleeces, used with usual pavings, permanent complementary accumulation to the skin areas present under the rest and to these continuities as well as skin frictions.

Setting of tasks

[0004] The invention is the basis the task to improve the properties of pavings for the application of medicine materials in semisolid and solid medicine forms for local and systemic medicament therapies.

[0005] This task invention moderate solved thereby that the paving from a rest from open-

porous and flexible foamed plastic with one or more technically produced apertures different geometry and a side mechanical barrier layer present, a flexible and closed-porous adhesive and from foamed plastic with a strike-compatible adhesive at its lower surface, downward, a flexible plastic foil, is fixed at which rest and adhesive and equipped serving on the top side as resist coating, with a glue layer, as well as on the lower surface a present, which is trained entire surface taking off, bordering turned away on the skin, generally on the rest, removable catch foil.

[0006] In order to improve the properties of the paving further to increase in particular the flexibility as well as the sealing characteristics, in a further construction of the invention, the rest from open-porous foamed plastic from PU is trained by the ether or type of ester, the mechanical barrier layer from a polymer film on PU base, the adhesive and from a flexible, closed-porous foamed plastic from polyethylene, the lidding foil from a flexible polymer on polyethylene base and the skin adhesive on an acrylate base.

[0007] The advantages obtained with invention exist in particular therein that the rest of the paving is made of a flexible foam pad, from which in technically simple way numerous variants to be provided can, z. B. Modifications with one or more technically differently trained apertures, which serve as additional depots for pharmaceutical formulations with medicine materials. In addition, the technically produced apertures can take up, depending upon kind of their construction, either pharmaceutical medicine forms with only one medicine material, offer the possibility of bringing formulations of medicine with different medicine materials separately into different apertures. Thereby the combination of different medicine materials can take place in a paving, whereby the different medicine materials remain separate however mechanical and the danger of chemical interactions of these medicine materials is reduced therefore. Bringing the pharmaceutical formulations into the apertures can take place thereby by means of usual pharmaceutical filling procedures. The anchoring of the pharmaceutical formulations takes place thereby into that which technical apertures surrounding, open-porous areas of the Schaumstoff-Auflage, into which the pharmaceutical formulation can penetrate. In the case of applying on the skin the open-porous structure makes a good and even distribution of the formulation of medicine for the rest possible.

[0008] The construction of the rest from the polymer connections, in particular from the range of the PU of the ether or type of ester, serving as base, results in physical, chemical and biological advantages. So these bonds have themselves with medicinal applications, e.g. with longer compresses or also within the range of the temporary skin replacement, staying on the skin, when physiologically inert works satisfactorily. By good chemical resistance opposite water, opposite for the skin relevant chemical influences as well as opposite fats, the inset of dermal medicine forms becomes, like z. B. Ointments, gels or also solid medicine forms makes possible.

[0009] The Schaumstoff-Auflage orders, opposite conventional pavings with fixed fabrics, over a better three-dimensional and durable elasticity and, by its soft consistency, a better and continuous matching the contour SAMness to the skin surface. The flexible reserve reduces outside pressure effects better and provides simultaneous for a permanent pressure of the rest on the skin.

[0010] Applying an additional separating layer on the Schaumstoffauflage prevents direct contacts of the formulations of medicament with the glue layer of the flexible cover film and the Abdifusion of active substances from the formulation of medicine into this range during longer

storing.

[0011] The use of a flexible foam material layer also within the range of the skin sticking areas results in, from additional flexibility, an improved adhesion to body outlines and thus better sealing. Besides the flexible elasticity of this part a Aufkräuseln of the edge of sticking prevents with the applying, how this happens frequently with pavings with simple adhesive films. The closed-porous structure of the edge of foam material prevents a depressing or a withdrawing of the formulation of medicine.

Aufführungsbeispiel

[0012] An embodiment of the invention is represented in the illustrations, whereby the example describes the invention without it to limit.

[0013] Fig. 1 shows the paving in the cross section, fig. the paving shows 2 in the view from downside.

[0014] Fig. 1 shows the rest (1) from open-porous foamed plastic with several technically produced apertures (2), to those, on which top side lying, separating layer (3) serve the rest near-rich and the admission of pharmaceutical formulations. Around the entire rest is the adhesive and from closed-porous, flexible foamed plastic (4) at its lower surface a thin coating skin adhesive (5) is. The top sides of the separating layer (3) and the adhesive and from foamed plastic (5) are connected with a flexible lidding foil (8) from polymer, which has at its lower surface a glue layer (7). On the lower surface of the paving a removable protective plastic film (8) is, which takes the entire paving off.

[0015] Fig. the same paving shows 2 in the view from downside, however without those, in fig. 1 represented, protective plastic film (8). The rest (1) with that, in this example rectangular arranged, technical apertures (2) is surrounded by the adhesive and from foamed plastic (4) from closed-porous polymer, which serves the adjustment of the paving on the skin. For the reason of the apertures the mechanical barrier layer (3) of the rest (1) is visible.